

REMARKS

Claims 1 and 5 stand rejected under Section 103(a) as being unpatentable over Frederick Yi-Tung Cho (UK Patent Application GB 2322504 hereinafter, "Cho") in view of Okuda (U.S. PUB. 2001/0019946). Claim 5 is canceled above.

Applicants appreciate the courtesies accorded by Examiner Nguyen to the undersigned during a telephone interview on May 19, 2008. The present remarks shall constitute an Interview Summary pursuant to MPEP §713.04.

The above amendments to independent Claim 1 were also discussed in the interview. Agreement was not reached as to the patentability of the pending claims. However, Examiner Nguyen indicated that he would consider Applicants' arguments. In the remarks that follow, Applicants will repeat the analysis that was made during the telephone interview and will provide additional analysis as to why the pending claim is patentable under § 103.

Claim 1 as amended recites as follows (emphasis added):

1. A clamshell-type mobile terminal for a wireless communication system, comprising:
 - a lower casing comprising a keypad with input keys;
 - an upper casing comprising a display, said lower casing and said upper casing being connected by a hinge mechanism connecting the lower casing and the upper casing so that the lower casing and the upper casing can be folded onto each other,
 - whereby the lower casing is the casing part, which during operating the mobile terminal is in the palm of the hand of the user, whereby the upper casing is extending away from the hand of the user in an opened state of the mobile terminal and folded onto the lower casing in a closed state of the mobile terminal,
 - whereby the hinge mechanism is located and arranged so that in the opened state, the lower casing lies above the upper casing enabling an easy access to input keys located close to the hinge mechanism on the lower casing, and
 - whereby a rotation axis of the hinge mechanism forming a centre of the folding movement between the lower casing and the upper casing lies in a middle plane of the lower casing;
 - wherein the hinge mechanism comprises at least one fixed structure projecting from the display plane of the upper casing and at least one rotating structure movably connecting the lower casing to the at least one fixed structure;

wherein the at least one fixed structure and the lower casing respectively comprise through holes into and through which the at least one rotating structure extends;

wherein the at least one rotating structure includes a first and a second part that are rotatable against one another;

wherein said first part of said rotatable structure is connected to said at least one fixed structure in a non-rotatable manner and said second part of said rotatable structure is connected to said lower casing in a non-rotatable manner;

wherein the clamshell-type mobile terminal consists essentially of the lower casing and the upper casing.

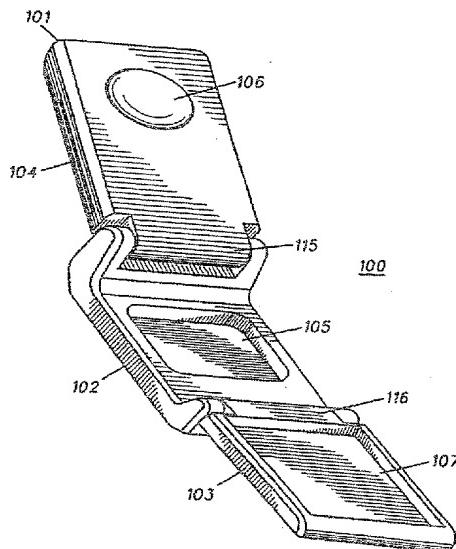


FIG. 1

Cho proposes a tri-fold mobile terminal, as shown in **Figure 1** above, that includes three major parts: a lower part **103**, a central part **102** and an upper part **101**. The lower part **103** includes a keypad, the central part **102** includes a display, and the upper part **101** includes a loudspeaker. In a closed state, the lower part **103** is folded onto the central part **102** and the upper part **101** is folded onto the lower part **103**. The Action cites the lower part **103** as corresponding to the lower casing as claimed and cites the central part **102** as corresponding to the upper casing as claimed.

However, Claim 1 recites that the clamshell-type mobile terminal consists essentially of the lower casing and the upper casing. Support for this recitation can be found, for

example, at page 3, lines 28-30 of Applicants' specification and in **Figures 1-4**. As discussed in the M.P.E.P. § 2111.03, the term "consisting essentially of" limits the scope of a claim to the specified materials "and those that do not materially affect the basic and novel characteristic(s) of the claimed invention." (citing *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461,463 (CCPA 1976)(emphasis in original)). Thus, Claim 1 is limited to a two part clamshell-type mobile terminal in direct contrast to the three part mobile terminal of Cho.

In addition, Claim 1 recites that "the lower casing is the casing part, which during operating the mobile terminal is in the palm of the hand of the user" and "the hinge mechanism is located and arranged so that in the opened state, the lower casing lies above the upper casing enabling an easy access to input keys located close to the hinge mechanism on the lower casing." According to embodiments of the current invention, providing a hinge that allows the lower casing to be located above the upper casing in the unfolded state allows input keys to be located close to the hinge on the lower casing. Thus, a user can easily access and operate the input keys with the thumb. See Applicants' specification, page 2, lines 27-32.

Applicants submit that there are no apparent reasons to modify the tri-fold mobile phone of Cho to include the recitations of Claim 1. In particular, a tri-fold mobile phone as proposed in Cho is held by a user in a very different way than a clamshell-type mobile terminal. A tri-fold mobile terminal is held by a user at its central part (*e.g.*, central part **102**), whereby the lower and the upper casing parts extend away from the hand of the user. Thus, the input of numbers or instructions using the keypad (which is located on the lower part **103**) cannot be performed by the thumb of the hand holding the central part of the casing. Instead, the user has to use the other hand in order to input numbers or instructions using the keypad.

Thus, the lower part **103** of Cho cannot correspond to the lower casing of Claim 1 because the lower part **103** of Cho is not the casing part, "which during operating the mobile terminal is in the palm of the hand of the user." Moreover, the central part **102** of Cho cannot correspond to the upper casing of Claim 1 because the central part **102** does not "extend[] away from the hand of the user in an opened state of the mobile terminal."

Nor would it have been obvious to one of ordinary skill at the time of the invention to have modified the Cho device to correspond to the claimed invention. To modify Cho to include only a lower casing and an upper casing as claimed would conflict with the stated

objects of Cho (*see, e.g.*, Cho at page 1, lines 22-24 ("Although these prior art cellular telephones have become smaller, it has been necessary to retain substantially the same overall length in order to maintain the proper distance from the user's ear to mouth. Accordingly, there is a need for is [sic] an improved tri-fold cellular telephone which is smaller than prior art cellular telephones while maintaining the proper distance from the user's ear to mouth.")).

Moreover, the requirements as to the configuration and the shape of a tri-fold mobile terminal as in Cho are completely different as compared to the configuration and the shape of a clamshell-type mobile phone, in which the user holds the lower part of the phone (thus being able to input instructions with the thumb of the hand holding the mobile terminal). Therefore, Cho does not teach or render obvious either the problem or the solution of Applicants' invention as claimed.

These features are also not disclosed by Okuda. Notably, as shown in Figures 11 and 13 of Okuda, the lower portion of the phone that includes the key pad lies below the upper portion that includes the display. In addition, the rotation axis of the hinge between the lower and the upper portions lies in the middle plane of the upper portion, and therefore, Okuda does not disclose "a rotation axis of the hinge mechanism forming a centre of the folding movement between the lower casing and the upper casing lies in a middle plane of the lower casing" as recited in Claim 1.

Accordingly, Applicants respectfully request that the rejection of Claim 1 under 35 U.S.C. 103 be withdrawn.

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CONCLUSION

Applicants respectfully submit that this application is now in condition for allowance, which action is requested. Should the Examiner have any matters outstanding of resolution, he is encouraged to telephone the undersigned at 919-854-1400 for expeditious handling.

Respectfully submitted,



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